

# Bay Area Air Quality Management District

939 Ellis Street  
San Francisco, CA 94109  
(415) 771-6000

---

## Proposed

## MAJOR FACILITY REVIEW PERMIT

Issued To:  
**Red Star Yeast and Products**  
**A Division of Universal Foods Corporation**  
**Facility #A3523**

**Facility Address:**  
1384 Fifth Street  
Oakland, CA 94607

**Mailing Address:**  
2100 Van Deman Street, Holabird Industrial Park  
Baltimore, MD 21224-6608  
~~(410) 633-8575~~

**Responsible Official**  
R.S. Martin  
(410) 633-8575

**Facility Contact**  
Alan Bahl, Environmental Engineer  
(410) 633-8575

---

<b>Type of Facility:</b>	Yeast Manufacturing
<b>Primary SIC:</b>	2099
<b>Product:</b>	Commercial Yeast

**ISSUED BY THE BAY AREA AIR QUALITY MANAGEMENT DISTRICT**

---

Ellen Garvey, Air Pollution Control Officer

---

Date

## TABLE OF CONTENTS

<u>I.</u>	<u>STANDARD CONDITIONS</u>	<u>1</u>
<u>II.</u>	<u>EQUIPMENT LIST</u>	<u>5</u>
	<u>A. PERMITTED SOURCE LIST</u>	<u>5</u>
<u>III.</u>	<u>GENERAL APPLICABLE REQUIREMENTS</u>	<u>6</u>
<u>IV.</u>	<u>SOURCE-SPECIFIC APPLICABLE REQUIREMENTS</u>	<u>9</u>
<u>V.</u>	<u>SCHEDULE OF COMPLIANCE</u>	<u>12</u>
<u>VI.</u>	<u>PERMIT CONDITIONS</u>	<u>12</u>
	<u>A. SOURCE SPECIFIC PERMIT CONDITIONS</u>	<u>12</u>
	<u>B. FACILITY-WIDE PERMIT CONDITIONS</u>	<u>13</u>
<u>VII.</u>	<u>APPLICABLE EMISSION LIMITS &amp; COMPLIANCE MONITORING REQUIREMENTS</u>	<u>14</u>
<u>VIII.</u>	<u>TEST METHODS</u>	<u>16</u>
<u>IX.</u>	<u>GLOSSARY</u>	<u>17</u>
<u>X.</u>	<u>APPENDIX A</u>	<u>20</u>

## **I. STANDARD CONDITIONS**

### **A. Administrative Requirements**

The permit holder shall comply with all applicable requirements in the following regulations:

BAAQMD Regulation 1 - General Provisions and Definitions

(as amended by the District Board on 11/3/93);

SIP Regulation 1 - General Provisions and Definitions

(as approved by EPA through 11/10/82);

BAAQMD Regulation 2, Rule 1 - Permits, General Requirements

(as amended by the District Board on 6/7/95);

SIP Regulation 2, Rule 1 - Permits, General Requirements

(as approved by EPA through 6/23/95);

BAAQMD Regulation 2, Rule 2 - Permits, New Source Review

(as amended by the District Board on 6/7/95);

SIP Regulation 2, Rule 2 - Permits, New Source Review and Prevention of Significant Deterioration

(as approved by EPA through 10/19/84); and

BAAQMD Regulation 2, Rule 4 - Permits, Emissions Banking

(as amended by the District Board on 6/15/94).

### **B. Conditions to Implement Regulation 2, Rule 6, Major Facility Review**

1. This Major Facility Review Permit expires on [ENTER DATE 5 YEARS AFTER ISSUANCE]. The permit holder shall submit a complete application for renewal of this Major Facility Review Permit no later than [6 MONTHS PRIOR TO EXPIRATION] and no earlier than [ONE YEAR PRIOR TO EXPIRATION]. **If a complete application for renewal has not been submitted in accordance with these deadlines, the facility may not operate after [DAY PRIOR TO EXPIRATION].** (Regulation 2-6-307, 404.2, & 409.6; MOP Volume II, Part 3, §4.2)
2. The permit holder shall comply with all conditions of this permit. The permit consists of this document and all appendices. Any non-compliance with the terms and conditions of this permit will constitute a violation of the law and will be grounds for enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. (Regulation 2-6-307 ~~409.7~~; MOP Volume II, Part 3, §4.11)
3. In the event any enforcement action is brought as a result of a violation of any term or condition of this permit, the fact that it would have been necessary for the permittee to halt or reduce the permitted activity in order to maintain compliance with such term or condition shall not be a defense to such enforcement action. (MOP Volume II, Part 3, §4.11)
4. This permit may be modified, revoked, reopened and reissued, or terminated for cause. (Regulation 2-6-307, 409.8, 415; MOP Volume II, Part 3, §4.11)
5. The filing of a request by the facility for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated non-

## I. Standard Conditions (continued)

- compliance does not stay the applicability of any permit condition. (Regulation 2-6-409.7; MOP Volume II, Part 3, §4.11)
6. This permit does not convey any property rights of any sort, nor any exclusive privilege. (Regulation 2-6-409.7; MOP Volume II, Part 3, §4.11)
  7. The permit holder shall supply within 30 days any information that the District requests in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit within 30 days. (Regulation 1-441, Regulation 2-6-409.4 & 501; MOP Volume II, Part 3, §4.11)
  8. Any records required to be maintained pursuant to this permit which the permittee considers to contain proprietary or trade secret information shall be prominently designated as such. Copies of any such proprietary or trade secret information which are provided to the District shall be maintained by the District in a locked confidential file, provided, however, that requests from the public for the review of any such information shall be handled in accordance with the District's procedures set forth in Section 11 of the District Administrative Code. (Regulation 2-6-419; MOP Volume II, Part 3, §4.11)
  9. Proprietary or trade secret information provided to EPA will be subject to the requirements of 40 CFR Part 2, Subpart B - Public Information, Confidentiality of Business Information. (40 CFR Part 2)
  10. The emissions inventory submitted with the application for this Major Facility Review Permit is an estimate of actual emissions for the time period stated and is included only as one means of determining applicable requirements for emission sources. It does not establish, or constitute a basis for establishing, any new emission limitations. (MOP Volume II, Part 3, §4.11)

### Minor Permit Modification Procedures

Notwithstanding the provisions set forth in Regulation 2, Rule 6, Major Facility Review; Section 411, Reports to EPA and Public Petitions for Major Facility Review Permits; Section 412, Public Participation, Major Facility Review Permit Issuance; and Section 414, Minor Permit Modification Procedures:

1. Advance public notice and EPA review shall not be required for any proposed minor permit modification. Once per calendar quarter, the District shall publish a list that includes any minor permit modification issued during the previous quarter.
2. For any minor permit modification involving an emission increase from any source or group of sources equal to or greater than: 5 tons per year of a regulated air pollutant; 2 tons per year of any single hazardous air pollutant; and 5 tons per year of any combination of hazardous air pollutants, the District shall provide to EPA a copy of each relevant application or a summary of the application, and a copy of each final permit revision.

## **I. Standard Conditions (continued)**

~~3. For any minor permit modification involving an emission increase from any source or group of sources of less than: 5 tons per year of a regulated air pollutant, 2 tons per year of any single hazardous air pollutant; and 5 tons per year of any combination of hazardous air pollutants, the District shall not submit a copy of the relevant application, a summary of the application, or final permit revision to EPA. EPA shall not object to any permit modification involving an emission increase below the levels described herein. Such permit modifications shall be incorporated as attachments to this permit during the remaining term of the permit, and incorporated into the body of the permit as part of the five year permit renewal.~~

### **C. Requirement to Pay Fees**

The permit holder shall pay annual fees in accordance with District Regulation 3, including Schedule P. (Regulation 2-6-402 & 409.13, Regulation 3; MOP Volume II, Part 3, §4.12)

### **D. Inspection and Entry**

Access to Facility: The permit holder shall provide reasonable access to the facility and equipment which is subject to this permit to the APCO and/or to his or her designee. (Regulation 1-440, Regulation 2-6-409.3; MOP Volume II, Part 3, §4.14)

### **E. Records**

Notwithstanding the specific wording in any requirement, all records for federally enforceable requirements shall be maintained for at least five years from the date of entry. (Regulation 2-6-501, Regulation 3; MOP Volume II, Part 3, §4.7)

### **F. Monitoring Reports**

All required monitoring reports must be submitted to the District at least once every six months. All instances of non-compliance shall be clearly identified in these reports. The reports shall be certified by the responsible official as true, accurate, and complete. In addition, all instances of non-compliance with the permit shall be reported to the District's Compliance and Enforcement Division within 10 days of the discovery of the incident. Within 30 days of the discovery of any incident of non-compliance, the facility shall submit a written report including the probable cause of non-compliance and any corrective or preventative actions. (Regulation 2-6-502, Regulation 3; MOP Volume II, Part 3, §4.7)

### **G. Compliance Certification**

Compliance certifications shall be submitted annually by the responsible official of this facility to the Bay Area Air Quality Management District and to the Environmental Protection Agency. The certification must list each applicable requirement, the compliance status, whether compliance was continuous or intermittent, the method used to determine compliance, and any other specific information required by the permit. The permit holder may satisfy this requirement through submittal of District-generated Compliance Certification forms. The certification should be directed to the District's Compliance and Enforcement Division, and a copy of the certification should be sent to the Environmental Protection Agency at the following address:

## **I. Standard Conditions (continued)**

Director of the Air Division  
USEPA, Region IX  
75 Hawthorne Street  
San Francisco, CA 94105  
Attention: Air-3

(MOP Volume II, Part 3, §4.5 and 4.15)

### **H. Emergency Provisions**

1. The permit holder may seek relief from enforcement action in the event of a breakdown, as defined by Regulation 1-208 of the District's Rules and Regulations, by following the procedures contained in Regulations 1-431 and 1-432. The District will thereafter determine whether breakdown relief will be granted in accordance with Regulation 1-433. (MOP Volume II, Part 3, §4.8)
2. The permit holder may seek relief from enforcement action for a violation of any of the terms and conditions of this permit caused by conditions beyond the permit holder's reasonable control by applying to the District's Hearing Board for a variance pursuant to Health and Safety Code Section 42350. The Hearing Board will determine after notice and hearing whether variance relief should be granted in accordance with the procedures and standards set forth in Health and Safety Code Section 42350 et seq. Any variance granted by the Hearing Board from any term or condition of this permit which lasts longer than 90 days will be subject to EPA approval. (MOP Volume II, Part 3, §4.8)
3. Notwithstanding the foregoing, the granting by the District of breakdown relief or the issuance by the Hearing Board of a variance will not provide relief from federal enforcement unless the Major Facility Review Permit has been modified pursuant to Regulation 2, Rule 6. (MOP Volume II, Part 3, §4.8)

### **I. Severability**

In the event that any provision of this permit is invalidated by a court or tribunal of competent jurisdiction, or by the Administrator of the EPA, all remaining portions of the permit shall remain in full force and effect. (Regulation 2-6-409.5; MOP Volume II, Part 3, §4.10)

### **J. Accidental Release**

This facility is subject to 40 CFR Part 68, Chemical Accident Prevention Provisions. The permit holder shall submit a risk management plan (RMP) by the date specified in §68.10. The permit holder shall also certify compliance with the requirements of Part 68 as part of the annual compliance certification, as required by Regulation 2, Rule 6. (40 CFR Part 68, Regulation 2, Rule 6)

## II. EQUIPMENT LIST

### A. Permitted Source List

Each of the following sources has been issued a permit to operate pursuant to the requirements of BAAQMD Regulation 2-1-302.

**Table II-A**

S-#	Description	Make or Type	Model	Capacity
S-1	Boiler #1	Ocean Shore	SDB 579	6.3 MMBTU/hr
S-2	Boiler #2	Ocean Shore	SDB 579	6.3 MMBTU/hr
S-3	Yeast Fermenter #1	Custom	Custom	Trade Secret
S-4	Yeast Fermenter #2	Custom	Custom	Trade Secret
S-5	Yeast Fermenter #3	Custom	Custom	Trade Secret
S-6	Yeast Fermenter #4	Custom	Custom	Trade Secret
S-7	Yeast Fermenter #5	Custom	Custom	Trade Secret

### III. GENERAL~~LY~~ APPLICABLE ~~EMISSION~~ REQUIREMENTS

The permit holder shall comply with all applicable requirements, including those specified in the BAAQMD and SIP Rules and Regulations and other federal requirements cited below. These requirements apply in a general manner to the facility and/or to sources exempt from the requirement to obtain a District Permit to Operate. The District has determined that these requirements would not be violated under normal, routine operations, and that no additional periodic monitoring or reporting to demonstrate compliance is warranted. In cases where a requirement, in addition to being generally applicable, is also specifically applicable to one or more sources, the requirement and the source are also included in ~~Part~~ Section IV, Source-Specific Applicable Requirements, and ~~Part VI, Applicable Emission Limits & Compliance Monitoring Requirements~~, of this permit.

The dates in parenthesis in the Title column identify the versions of the regulations being cited and are, as applicable:

1. BAAQMD regulation(s):

† The date(s) of adoption or most recent amendment of the regulation by the District Board or, for SIP requirements

2. Any federal requirement, including a version of a District regulation that has been approved into the SIP:

† The most recent date of EPA approval of any portion of the rule, encompassing all actions on the rule through that date

Where an applicable requirement is a SIP requirement, the full language of the SIP requirement is included in Appendix A of this permit.

Table III

Applicable Requirement	Regulation Title or Description of Requirement	<del>SIP-approved/</del> FE (Y/N)	<del>Sources/Operations</del> <del>Covered</del>
<b>BAAQMD Regulation 1</b>	<b>General Provisions and Definitions (11/3/93)</b>	<u>N</u> <del>Y</del> <sup>†</sup>	<del>all</del>
<u><b>SIP Regulation 1</b></u>	<u><b>General Provisions and Definitions (11/10/82)</b></u>	<u>Y</u>	
<b>BAAQMD Regulation 5</b>	<b>Open Burning (11/2/94)</b>	<u>N</u> <del>Y</del> <sup>†</sup>	<del>facility</del>
<u><b>SIP Regulation 5</b></u>	<u><b>Open Burning (5/3/84)</b></u>	<u>Y</u>	
<b>BAAQMD Regulation 6</b>	<b>Particulate Matter and Visible Emissions (12/19/90)</b>	<u>N</u>	



### III. Generally Applicable ~~Emission~~ Requirements (continued)

Table III (continued)

Applicable Requirement	Regulation Title or Description of Requirement	<del>SIP</del> approved/ FE (Y/N)	Sources/Operations Covered
<del>6-301</del>	<del>Ringelmann Number 1 Limitation</del>	<del>Y</del> <sup>+</sup>	all, except temporary sandblasting, open fires, and operations subject to BAAQMD §6-303, 304, or 306
<del>6-303</del>	<del>Ringelmann Number 2 Limitation</del>	<del>Y</del>	sources listed in subsections
<del>6-305</del>	<del>Visible Particles</del>	<del>Y</del>	all, except temporary sandblasting and open fires
<del>6-310</del>	<del>Particulate Weight Limitation</del>	<del>Y</del>	all, except temporary sandblasting and open fires
<del>6-401</del>	<del>Appearance of Emissions</del>	<del>Y</del>	all
<del>SIP Regulation 6</del>	<del>Particulate Matter and Visible Emissions (5/3/84)</del>	<del>Y</del>	
BAAQMD Regulation 7	Odorous Substances (3/17/82)	N	all
BAAQMD Regulation 8, Rule 1	Organic Compounds - General Provisions (6/15/94)	Y	solvent cleaning operations, except operations subject to Reg 8-2 or 8-4 which meet minimum abatement requirements
BAAQMD Regulation 8, Rule 3	Organic Compounds - Architectural Coatings (12/20/95)	<del>N</del> <del>Y</del> <sup>+</sup>	application of architectural coating
<del>SIP Regulation 8, Rule 3</del>	<del>Organic Compounds - Architectural Coatings (11/16/83)</del>	<del>Y</del>	
BAAQMD Regulation 8, Rule 49	Organic Compounds - Aerosol Paint Products (12/20/95)	<del>N</del> <del>Y</del> <sup>+</sup>	application of or specifications for aerosol products
<del>SIP Regulation 8, Rule 49</del>	<del>Organic Compounds - Aerosol Paint Products (3/22/95)</del>	<del>Y</del>	

### III. Generally Applicable ~~Emission~~ Requirements (continued)

Table III (continued)

Applicable Requirement	Regulation Title or Description of Requirement	<del>SIP-approved/</del> FE (Y/N)	<del>Sources/Operations Covered</del>
<b>BAAQMD Regulation 8, Rule 51</b>	<b>Organic Compounds - Adhesive and Sealant Products (12/20/95)</b>	N	<del>application or specification of adhesive or sealant products</del>
<b>BAAQMD Regulation 11, Rule 2</b>	<b>Hazardous Pollutants - Asbestos Demolition, Renovation and Manufacturing (12/4/91)</b>	Y	<del>asbestos surfacing/coating, installation, demolition, disposal</del>
<b>BAAQMD Regulation 12, Rule 4</b>	<b>Miscellaneous Standards of Performance - Sandblasting (7/11/90)</b>	<del>N</del> <sup>+</sup>	<del>non-permanent abrasive blasting operations</del>
<u>SIP Regulation 12, Rule 4</u>	<u>Miscellaneous Standards of Performance - Sandblasting (9/2/81)</u>	<u>Y</u>	

<sup>+</sup> There are differences between the current BAAQMD rule and the version of the rule in the SIP. For specific information, contact the District's Rule Development Section of the Enforcement Division. All sources must comply with both versions of the rule until US EPA has reviewed and approved (or disapproved) the District's revision of the regulation.

#### IV. SOURCE-SPECIFIC APPLICABLE REQUIREMENTS

The permit holder shall comply with all applicable requirements, including those specified in the BAAQMD and SIP Rules and Regulations and other federal requirements cited below. The requirements cited in the following tables apply in a specific manner to the indicated source(s). The text of all permit conditions cited is included in Part V, Permit Conditions, of this permit. All other text may be found in the regulations themselves.

The dates in parenthesis in the Title column identify the versions of the regulations being cited and are, as applicable:

1. BAAQMD regulation(s):

† The date(s) of adoption or most recent amendment of the regulation by the District Board or, for SIP requirements

2. Any federal requirement, including a version of a District regulation that has been approved into the SIP:

† The most recent date of EPA approval of any portion of the rule, encompassing all actions on the rule through that date

The full text of each permit condition cited is included in Section VI, Permit Conditions, of this permit. Additionally, where an applicable requirement is a SIP requirement, the full language of the SIP requirement is included in Appendix A of this permit. All other text may be found in the regulations themselves.

**Table IV-A**

**S-1: Boiler #1**

**S-2: Boiler #2**

Applicable Requirement	Regulation Title or Description of Requirement	<u>SIP-approved/ Federally Enforceable</u> (Y/N)	Future Effective Date
<b>BAAQMD Regulation 9, Rule 1</b>	<b>Inorganic Gaseous Pollutants - Sulfur Dioxide (3/15/95)</b>		
9-1-302	General Emission Limitations, or 9-1-304	Y	
9-1-304	Fuel Burning - Liquid and Solid Fuels, or 9-1-302	Y	
<b>BAAQMD Regulation 9, Rule 7</b>	<b>Inorganic Gaseous Pollutants - Nitrogen Oxides and Carbon Monoxide from Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters (9/16/92)</b>		
9-7-304	Low Fuel Usage Requirements	N	
9-7-304.1	Operating Standard, O <sub>2</sub>	N	
9-7-304.2	Operating Standard, Tuning	N	

#### IV. Source-Specific Applicable Requirements (continued)

**Table IV-A (continued)**

**S-1: Boiler #1**

**S-2: Boiler #2**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b><del>SIP-approved/</del> <u>Federally Enforceable</u> (Y/N)</b>	<b>Future Effective Date</b>
9-7-304.3	Performance Standards, NOx and CO	N	
9-7-305	Natural Gas Curtailment - Non-Gaseous Fuel	N	
9-7-305.1	Performance Standard, NOx	N	
9-7-305.2	Performance Standard, CO	N	
9-7-306	Equipment Testing - Non-Gaseous Fuel	N	
9-7-306.1	Performance Standard, NOx	N	
9-7-306.2	Performance Standard, CO	N	
9-7-306.3	Operating Standard, Equipment Testing	N	
9-7-403	Initial Compliance Demonstration	N	
9-7-502	Modified Maximum Heat Input	N	
9-7-503	Records	N	
9-7-503.1	§304.2 Records	N	
9-7-503.2	Records, Curtailment	N	
9-7-503.3	§306.3 Records	N	
9-7-503.4	§403 Records and Record Retention	N	
9-7-601	Determination of NOx	N	
9-7-602	Determination of CO and Stack-Gas O <sub>2</sub>	N	
9-7-603	Compliance Determination	N	
9-7-604	Tune-Up Procedures	N	
9-7-605	Determination of Higher Heating Value	N	
<b>BAAQMD Condition # 1993</b>			
part 1	Fuel oil sulfur concentration limit (Cumulative Increase)	Y	
part 2	Fuel oil firing situational limit (Cumulative Increase)	Y	
part 3	Maximum heat input limit (Cumulative Increase)	Y	
part 4	Records of fuel use (Cumulative Increase)	Y	

#### IV. Source-Specific Applicable Requirements (continued)

**Table IV-B**

**S-3: Fermenter #1**

**S-4: Fermenter #2**

**S-5: Fermenter #3**

**S-6: Fermenter #4**

**S-7: Fermenter #5**

Applicable Requirement	Regulation Title or Description of Requirement	<del>SIP-approved/</del> <u>Federally Enforceable</u> (Y/N)	Future Effective Date
<b>BAAQMD Regulation 8 Rule 2</b>	<b>Organic Compounds - Miscellaneous Operations (6/15/94)</b>		
8-2-111	Exemption - Food Preparation; Provided the best modern practices are used.	Y	
<b>BAAQMD Condition # 12754</b>			
part 1 <sup>1</sup>	Fermenter gas carbon concentration limits (Regulation 8-2-111, RACT)	Y	
part 2	Fermenter off-property odor correction or abatement requirement (Regulation 1-301)	N	
part 3	Records	Y	
part 3a <sup>1</sup>	Fermenter exhaust gas carbon concentrations (Regulation 8-2-111, RACT)	Y	
part 3b	Yeast production data and measurements (AB-2588)	N	
part 3c <sup>1</sup>	Monitor weekly calibration requirement (Regulation 8-2-111, RACT)	Y	

<sup>1</sup> Condition is federally enforceable only for precursor organic compound emissions, not for acetaldehyde emissions.

## **V. SCHEDULE OF COMPLIANCE**

The permit holder shall continue to comply with all applicable requirements cited in Parts III and IV of this permit. The permit holder shall also comply with applicable requirements that become effective during the term of this permit.

## **VI. PERMIT CONDITIONS**

Any condition that is preceded by an asterisk is not federally enforceable.

### **A. Source Specific Permit Conditions**

#### **Condition #12754**

**S-3: Fermenter #1**

**S-4: Fermenter #2**

**S-5: Fermenter #3**

**S-6: Fermenter #4**

**S-7: Fermenter #5**

- 1.<sup>1</sup> The total carbon concentration in the exhaust gas from sources S-3, S-4, S-5, S-6 and S-7 shall not exceed the following limits as emitted, averaged over the batch duration. [basis: Regulation 8-2-111, RACT]

Fermentation Type	Fermentation Products	Offgas VOC Concentration (as carbon)
Trade	Liquid Yeast for Sale	300 ppmv
First Generation	Pitch Yeast for Trade	450 ppmv
Stock	Pitch Yeast for First Generation	900 ppmv

2. Fermenters causing an off-property odor nuisance problem per District Regulations 7-302 or 1-301, shall be managed to reduce or contain odors to comply with District regulations. Within 72 hours of the nuisance, the owner/operator shall submit to the District, a summary of the problem(s) causing the odor and clearly outline all corrective and/or preventive measures taken. [basis: Regulation 1-301]

<sup>1</sup> Condition is federally enforceable only for precursor organic compound emissions, not for acetaldehyde emissions.

## VI. Permit Conditions (continued)

### A. Source Specific Permit Conditions (continued)

#### Condition #12754 (continued)

**S-3: Fermenter #1; S-4: Fermenter #2; S-5: Fermenter #3; S-6: Fermenter #4  
S-7: Fermenter #5**

- 3.<sup>1</sup> The following records shall be maintained in a District approved log. These records shall be kept on site and made available for District inspection for a period of 5 years at least 36 months from the date on which the record was made. [basis: BAAQMD Regulation 2-6-501, MOP Volume II, Part 3, Section 4.78].
- a. The exhaust gas total carbon concentration shall be recorded, using a District approved monitor, at least once per hour during each fermentation batch, and the average carbon concentration shall be calculated and recorded for each batch. [basis: Regulation 8-2-111, RACT]
- b. All yeast production data and measurements needed to determine actual emissions from the facility annually. [basis: AB2588]
  - i) The number of each type of yeast batch (trade, stock, or first generation),
  - ii) The annual production of yeast from each type of fermentation process, and;
  - iii) The average air flow rate for each type of fermentation.
- c. The VOC measuring instrument calibrations shall occur and be recorded at least once each week. [basis: Regulation 8-2-111, RACT]

#### Condition #1993 S-1: Boiler #1; S-2: Boiler #2

1. The sulfur content in fuel oil used for firing in the boiler shall not exceed 0.4 percent. [basis: Cumulative Increase]
2. Fuel oil shall be fired only in the event of gas curtailment or when the price of oil is lower than natural gas calculated as "dollars per million BTU" heat input. [basis: Cumulative Increase]
3. The heat input to the boiler shall not exceed 6.3 million BTU per hour. [basis: Cumulative Increase]
4. Daily record of all fuel oil usage shall be maintained on District approved log. The log shall be maintained for at least 52 years and shall be made available to the District upon request. [basis: BAAQMD Regulation 2-6-501, MOP Volume II, Part 3, Section 4.7Cumulative Increase]

### B. Facility-wide Permit Conditions

None.

## VII. APPLICABLE EMISSION LIMITS & COMPLIANCE MONITORING REQUIREMENTS

This section has been included only to summarize the applicable emission limits contained in Section IV, Source-Specific Applicable Requirements, of this permit. The following tables show the relationship between each emission limit and the associated compliance monitoring provisions, if any indicate the type of compliance monitoring required for each applicable emission limit. The monitoring frequency indicates whether periodic (P) or continuous (C) monitoring is required. For periodic monitoring, the frequency of the monitoring has also been shown, either annual (A), quarterly (Q), monthly (M), daily (D), or on an event basis (E). No monitoring (N) has been required if the current applicable rule or regulation does not require monitoring, and the operation is unlikely to deviate from the applicable emission limit based upon the nature of the operation.

**Table VII-A**

**S-1, Boiler #1  
S-2, Boiler #2**

Pollutant	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
SO <sub>2</sub>	Regulation 9-1-302	Y		≤ 300 ppm SO <sub>2</sub> , dry		N	
	9-1-304	Y		≤ 0.5% by weight, fuel sulfur concentration		N	
NO <sub>x</sub>	Regulation 9-7-305.1	N		150 ppmv dry, @ 3% O <sub>2</sub>	None	N	
	9-7-306.1	N		150 ppmv dry, @ 3% O <sub>2</sub>	None	N	
CO	Regulation 9-7-305.2	N		400 ppmv dry, @ 3% O <sub>2</sub>	None	N	
	9-7-306.2	N		400 ppmv dry, @ 3% O <sub>2</sub>	None	N	
NO <sub>x</sub> and CO	Regulation 9-7-304.1	N		≤ 3% O <sub>2</sub> , dry, volume basis, exhaust concentration	None	N	
	9-7-306.3	N		48 hours non-gaseous fuel testing	Regulation 9-7-503.3	N	test records



## VII. Applicable Emission Limits & Compliance Monitoring Requirement (continued)

Table VII-B

**S-3: Fermenter #1**

**S-4: Fermenter #2**

**S-5: Fermenter #3**

**S-6: Fermenter #4**

**S-7: Fermenter #5**

Pollutant	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
POC and acetaldehyde	BAAQMD Condition 12754 part 1	Y <sup>1</sup>		300 ppmv carbon trade yeast batch average, as emitted	BAAQMD Condition 12754 part 3a	P	sampling and analysis
	BAAQMD Condition 12754 part 1	Y <sup>1</sup>		450 ppmv carbon first generation yeast batch average, as emitted	BAAQMD Condition 12754 part 3a	P	sampling and analysis
	BAAQMD Condition 12754 part 1	Y <sup>1</sup>		900 ppmv carbon stock yeast batch average, as emitted	BAAQMD Condition 12754 part 3a	P	sampling and analysis

<sup>1</sup> Condition is federally enforceable only for precursor organic compound emissions, not for acetaldehyde emissions.

## VIII. TEST METHODS

The test methods associated with the emission limit of a District regulation are generally found in Section 600 of the regulation. The following table indicates only the test methods associated with the emission limits referenced in Section VII - Applicable Emission Limits & Compliance Monitoring Requirements, [of this permit](#).

Table VIII

Applicable Requirement	Description of Requirement	Acceptable Test Methods	<del>SIP-Approved</del>
BAAQMD Condition 12754 part 1	carbon concentration limits	1) BAAQMD Manual of Procedures, Volume IV, ST-7, or 2) EPA Method 25 or 25A	<del>N</del> <del>Y</del>
BAAQMD 9-1-302	General Emission Limitation	Manual of Procedures, Volume IV, ST-19A, Sulfur Dioxide, Continuous Sampling, or ST-19B, Total Sulfur Oxides Integrated Sample	<del>N</del>
BAAQMD 9-1-304	Fuel Burning (Liquid and Solid Fuels)	Manual of Procedures, Volume III, Method 10, Determination of Sulfur in Fuel Oils.	<del>N</del>
BAAQMD 9-7-301.1	Performance Standard, NO <sub>x</sub> , Gaseous Fuel	Manual of Procedures, Volume IV, ST-13A, Oxides of Nitrogen, Continuous Sampling and ST-14, Oxygen, Continuous Sampling	<del>N</del> <del>N</del>
BAAQMD 9-7-304.1	Low Fuel Usage Requirements, O <sub>2</sub> Operating Standard, O <sub>2</sub>	Manual of Procedures, Volume IV, ST-14, Oxygen, Continuous Sampling	<del>N</del>
BAAQMD 9-7-305.1	Natural Gas Curtailment Performance Standard, NO <sub>x</sub>	Manual of Procedures, Volume IV, ST-13A, Oxides of Nitrogen, Continuous Sampling and ST-14, Oxygen, Continuous Sampling	<del>N</del> <del>N</del>
BAAQMD 9-7-305.2	Natural Gas Curtailment Performance Standard, CO	Manual of Procedures, Volume IV, ST-6, Carbon Monoxide, Continuous Sampling and ST-14, Oxygen, Continuous Sampling	<del>N</del> <del>N</del>
BAAQMD 9-7-306.1	Equipment Testing - Non-Gaseous Fuel NO <sub>x</sub> Performance Standard	Manual of Procedures, Volume IV, ST-13A, Oxides of Nitrogen, Continuous Sampling and ST-14, Oxygen, Continuous Sampling	<del>N</del> <del>N</del>
BAAQMD 9-7-306.2	Equipment Testing - Non-Gaseous Fuel CO Performance Standard	Manual of Procedures, Volume IV, ST-6, Carbon Monoxide, Continuous Sampling and ST-14, Oxygen, Continuous Sampling	<del>N</del> <del>N</del>

## IX. GLOSSARY

### **BAAQMD**

Bay Area Air Quality Management District

### **BACT**

Best Available Control Technology

### **Basis**

The underlying authority which allows the District to impose requirements.

### **CAA**

The federal Clean Air Act

### **CAAQS**

California Ambient Air Quality Standards

### **CEQA**

California Environmental Quality Act

### **CFR**

The Code of Federal Regulations. 40 CFR contains the implementing regulations for federal environmental statutes such as the Clean Air Act. Parts 50-99 of 40 CFR contain the requirements for air pollution programs.

### **Cumulative Increase**

The sum of permitted emissions from each new or modified source since a specified date pursuant to BAAQMD Rule 2-1-403, Permit Conditions (as amended by the District Board on 7/17/91) and SIP Rule 2-1-403, Permit Conditions (as approved by EPA on 6/23/95). Used to determine whether threshold-based requirements are triggered.

### **CO**

Carbon Monoxide

### **Cumulative Increase**

The sum of permitted emissions from each new or modified source since a specified date. Used to determine whether threshold-based requirements are triggered.

### **District**

The Bay Area Air Quality Management District

### **EPA**

The federal Environmental Protection Agency.

### **Excluded**

Not subject to any District Regulations.

### **Federally Enforceable, FE**

All limitations and conditions which are enforceable by the Administrator of the EPA including those requirements developed pursuant to 40 CFR Part 51, subpart I (NSR), Part 52.21 (PSD), Part 60, (NSPS), Part 61, (NESHAPS), Part 63 (HAP), and Part 72 (Permits Regulation, Acid

Rain), and also including limitations and conditions contained in operating permits issued under an EPA-approved program that has been incorporated into the SIP.

### **HAP**

Hazardous Air Pollutant. Any pollutant listed pursuant to Section 112(b) of the Act. Also refers to the program mandated by Title I, Section 112, of the Act and implemented by both 40 CFR Part 63, and District Regulation 2, Rule 5.

## **VIII IX. Glossary (continued)**

### **Major Facility**

A facility with potential emissions of regulated air pollutants greater than or equal to 100 tons per year, greater than or equal to 10 tons per year of any single hazardous air pollutant, and/or greater than or equal to 25 tons per year of any combination of hazardous air pollutants, or such lesser quantity as determined by the EPA administrator.

### **MFR**

Major Facility Review. The District's term for the federal operating permit program mandated by Title V of the Act and implemented by District Regulation 2, Rule 6.

### **MOP**

The District's Manual of Procedures.

### **NAAQS**

National Ambient Air Quality Standards

### **NESHAPS**

National Emission Standards for Hazardous Air Pollutants. Contained in 40 CFR Part 61.

### **NMHC**

Non-methane Hydrocarbons

### **NO<sub>x</sub>**

Oxides of nitrogen.

### **NSPS**

Standards of Performance for New Stationary Sources. Federal standards for emissions from new stationary sources. Mandated by Title I, Section 111 of the Act, and implemented by both 40 CFR Part 60 and District Regulation 10.

### **NSR**

New Source Review. A federal program for preconstruction review and permitting of new and modified sources of air pollutants for which the District is classified "non-attainment". Mandated by Title I of the Clean Air Act and implemented by 40 CFR Parts 51 and 52 as well as District Regulation 2, Rule 2. (Note: There are additional NSR requirements mandated by the California Clean Air Act.)

### **Offset Requirement**

A New Source Review requirement to provide federally enforceable emission offsets at a specified ratio for the emissions from a new or modified source and any pre-existing cumulative increase minus any onsite contemporaneous emission reduction credits. Applies to emissions of POC, NO<sub>x</sub>, PM<sub>10</sub>, and SO<sub>2</sub>.

### **Phase II Acid Rain Facility**

A facility that generates electricity for sale through fossil-fuel combustion and by virtue of certain other characteristics (defined in Regulation 2, Rule 6) is subject to Titles IV and V of the Clean Air Act.

### **POC**

## **VIII IX. Glossary (continued)**

Precursor Organic Compounds

### **PM**

Total Particulate Matter

### **PM10**

Particulate matter with aerodynamic equivalent diameter of less than or equal to 10 microns

### **PSD**

Prevention of Significant Deterioration. A federal program for permitting new and modified sources of air pollutants for which the District is classified "attainment" of the National Air Ambient Quality Standards. Mandated by Title I of the Act and implemented by both 40 CFR Part 52 and District Regulation 2, Rule 2.

### **SIP**

State Implementation Plan. State and District programs and regulations approved by EPA and developed in order to attain the National Ambient Air Quality Standards. Mandated by Title I of the Act.

### **SO2**

Sulfur dioxide

### **Title V**

Title V of the federal Clean Air Act. Requires a federally enforceable operating permit program for major and certain other facilities.

### **VOC**

Volatile Organic Compounds

### **Units of Measure:**

bhp	=	brake-horsepower
Btu	=	British Thermal Unit
g	=	grams
gal	=	gallon
hp	=	horsepower
hr	=	hour
lb	=	pound
in	=	inches
max	=	maximum
m <sup>2</sup>	=	square meter
min	=	minute
MM	=	million
ppmv	=	parts per million, by volume
ppmw	=	parts per million, by weight
psia	=	pounds per square inch, absolute
psig	=	pounds per square inch, gauge
scfm	=	standard cubic feet per minute
yr	=	year

Facility Name: Red Star Yeast and Products  
Proposed Permit for Facility #: 3523  
Expiration Date: [ENTER DATE]  
ID: KRD

**X. APPENDIX A**

|